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WHY UKRAINE SHOULD NOT ESTABLISH A GUARANTEE FUND FOR NON-STATE PENSION FUNDS

Prepared by PADCO Social Sector Reform Project

October, 1998

INTRODUCTION

The government of Ukraine asked us to review and comment on a draft Cabinet of Minister's decree which would create a pilot project for establishment of insurance guarantees for contributors to the non-State pension system. The primary goals of this pilot project, according to the draft Decree are:

- Guarantee the soundness of non-state pension funds
- Provide guaranteed returns to participants by investing them into highly-profitable investments
- Ensure liquidity and profitability of non-State pension fund assets

According to the draft Decree, the guarantee Fund will be created solely from contributions of enterprises and organizations participating in the pilot project. The Fund will operate on a not-for-profit basis, and the government of Ukraine will have no liabilities with respect to the Fund.

The government of Ukraine has asked for our comments on this proposed guarantee Fund. We have serious concerns about the operation and financing of such a Fund. The purpose of this report is to explore all issues associated with the creation, financing, and administration of such a guarantee Fund.

It also isn't clear how a pilot program for the guarantee Fund will work. Will only a few pension funds participate in the formation of the guarantee Fund initially? What will be the duration of the guarantee Fund and the experiment? What will happen if the experiment fails? When the pilot project ends, what will happen to the assets remaining in the Fund?

In order to establish such a Fund, a variety of issues must be addressed:

- What are the basic principles of guarantee fund operation?
- What type of guarantee will be provided?
- How will the Fund be financed?
- How will the Fund be managed financially – premiums, reserves, risk assessment, etc.?
- What restrictions (if any) will be imposed by the Fund or the government on the investment activity of its members and founders?
- What reserve and equity requirements will be imposed by the Fund or the government on its members?
- What is the Fund's rights in the event one of its members files for bankruptcy?

Each of these questions is critical for the sound financial operation of the guarantee Fund. We discuss each of these issues in detail in the remainder of this report.

PURPOSE AND PRINCIPLES OF GUARANTEE FUND

Presumably, the purpose of the guarantee fund is to give the public greater confidence in the private pension fund industry. In the past, private financial institutions in Ukraine have often failed, and participants have lost their money. Today, private pension funds operate in the absence of legislation, and there is no effective government regulation of the private pension industry. In addition, the financial crises in East Asia and this region have made the situation even more volatile. Consequently, workers are reluctant to make contributions to the private pension funds. The industry hopes if there is some type of guarantee the funds will meet their obligations, workers will be more willing to invest their money in these funds.

The fundamental question is how to structure the Fund so it is financially viable and can actually protect workers' pension savings accounts. Before focusing on design and financing issues, certain basic principles of guarantee fund operation must be understood. First, a guarantee fund is an insurance company. In exchange for premiums, it promises to pay benefits under specified conditions. So the Fund must perform all the same operations as any insurance company:

- Review applications, decide whether it wants to insure the risk, and issue contracts
- Establish premium levels and benefits
- Prepare regular actuarial analysis of premium adequacy, reserves, and financial soundness so the fund remains solvent and pays claims when due
- Prepare periodic financial statements in accordance with international accounting standards
- Monitor compliance with contractual terms
- Review and pay claims resulting from failure to achieve minimum required rate of return or from failure of financial institutions
- Take appropriate legal actions when necessary to protect the Fund's interests.

Like any other business, the founders of the guarantee Fund (insurance company) must also evaluate whether the potential business can succeed. What level of initial and ongoing capital is required for this business? Are workers available who have the necessary skills and experience to run the company? Is there a demand for the product they have to offer? If so, can the product be offered at a reasonable price in relation to the benefit provided? What is the probability the company will go bankrupt?

Unlike most private enterprises, there is a public interest in the solvency of any insurance company. An insurance company which can't pay claims when due is of no value. Consequently, the Fund must be subject to extensive government regulation and oversight to ensure it can meet its obligations, and an initial assessment must be made as to whether such an insurance operation can be financially viable.

PRINCIPLES FOR CREATING AN EFFECTIVE FUND

There are certain requirements which must be met for insurance to function properly. When these conditions are not met, either a risk cannot be insured, or the insurance mechanism will not work effectively. These fundamental conditions are:

- *Insurable interest*: This means the person or organization purchasing the insurance should have a proper relationship to the person or risk which is being insured against. The best example is life

insurance. If a husband purchases a life insurance policy on his wife, this appears to be a reasonable thing to do. If the wife dies, there will be a financial loss to the husband because he will either lose the income the wife was earning, and/or have to hire someone to perform the functions in the house which she previously performed. The husband will suffer a financial loss if the wife dies. In this case, he has an "insurable interest" in the wife, because he not want the wife to die, and will have no interest in causing her death.

However, it would not be proper for the husband to purchase insurance on the life of a total stranger. Here, there is no reason to believe the husband would suffer a financial loss if the stranger died, and the presence of the insurance might even cause the husband to want the stranger to die. How does this relate to the guarantee fund? Here, insurable interest also seems to exist. An employer is providing a benefit for his employees. He wants to be sure the pension fund does well so his employees will be satisfied with the program. An insurable interest exists, so the first condition exists

- *Probability of event occurring is low, and the financial consequences are high:* It is difficult and unnecessary to insure routine, predictable events. Insurance works best when a large number of people or organizations each contribute a small amount of money so that in the rare circumstances when a particular event occurs, there is sufficient money to compensate someone for a large loss. If the financial consequences of an event are low, then there is no need to insure it. The person can simply pay for the event when it happens as a regular budgeted expense. On the other hand, if the probability of an event occurring is high, then the premium will likely be so high that it is not worth having insurance. For example, it doesn't make sense to have insurance for changing the oil in a car for both reasons. Oil changes will occur frequently, and the cost of changing oil is low, so it can be planned and budgeted. Consequently, the cost of the oil change insurance would be almost as high as the cost of the oil change itself, and insurance will not work.

  Once again, life insurance is a good example of when insurance works well. The probability of death at most ages is very low. However, if a primary wage earner dies, the financial consequences to the family could be devastating. Suddenly, all income for their support is gone. Several thousand people can each contribute a very small amount of money, and there will be a very large amount of money available to pay benefits to the 2 or 3 people who die.

  For the proposed guarantee Fund, the probability of the event occurring will depend on what is being guaranteed. If everyone is promised a return of 3% over inflation, for example, the probability that actual returns will be less is very large. Therefore, the amount of the claim involved could also be very large. For example, in Chile this year, returns on both stocks and bonds are likely to be about –20% for the year, and inflation is about 10%. So if the Fund guaranteed a return of 3% in excess of inflation, the claim would be for 33% of assets (difference between –20% and the guarantee of 13%, 3% over inflation). In this case, the financial consequences would be high. Consequently, the premium would likely be so large no one would be interested in purchasing the insurance.

- *Each incidence of the event insured against should be independent of any other event*

  This means when one person or organization makes a claim, it should have no impact on anyone else making a claim. For the most part, life insurance meets this criteria. Unless there is a war or an epidemic, when one person dies, it doesn't increase the chances that other people will die. However, exactly the opposite is true for a guarantee Fund. If investment returns are poor in one pension fund they will be poor in other pension funds as well. And if one pension fund is having severe financial problems, most likely many other pension funds will also have problems at the

same time. If the economy is doing poorly, or there is a financial crisis, then everyone will have claims at the same time. In this situation, the guarantee Fund will not remain solvent. If it cannot pay, the government will almost certainly be called upon to bail out the "guarantee" fund.

- *Person or organization does not want the event to occur*: It is foolish to provide insurance against an event which a person does not want to prevent. This is one of the reasons medical insurance in the United States often does not work well. If someone knows they will be reimbursed by an insurance company for all medical expenses incurred, they have no incentive to use medical services carefully. The presence of insurance encourages the person to use more medical services than would have been used in the absence of insurance. Eventually, this leads to high premiums, large increases in the price of medical services, and an ineffective insurance system.

  Medical insurance for routine medical expenses also violates the principle that the probability of a claim occurring should be low and the financial consequences should be high. In this case, the financial consequences are predictable, and the probability of a claim is high. By contrast, if medical insurance is designed only to protect against catastrophic illness such as cancer or a heart attack, it can work well. The probability of such events (at least for younger people) is quite low, the financial consequences are very high, and no one wants these events to occur. Under this arrangement, ordinary medical expenses would be paid by the individual. Now each person has an incentive to control the use of routine medical services, and at the same time, the individual is protected against the consequences of serious illness.

  All these principles apply to the guarantee Fund. In fact, one of the biggest problems with guarantee Funds is that they provide an incentive for reckless financial behavior. One of the best examples is from the United States. The Savings and Loan (S&L) crisis in the United States during the 1980s was largely caused by violation of this principle. At one time, S&Ls were only allowed to invest deposits very conservatively. Only the safest financial instruments could be purchased. Under intense lobbying from the industry, Congress passed laws which allowed S&Ls to invest their depositor's money in much riskier assets. Many leading bankers decided they had nothing to lose by investing their depositor's money recklessly.

  The Savings and Loan Insurance Corporation (SLIC) guaranteed all individual's accounts up to $100,000. So these bankers reasoned that if they were successful, profits would increase. And if they lost, the SLIC guaranteed depositors wouldn't lose any money. The outcome was predictable. Massive numbers of S&Ls failed, the SLIC ran out of money, and the government had to step in and make good on tens of billions of dollars of claims. The presence of the guarantee actually removed the incentive for proper business behavior and provided an incentive to take risks.

  If a guarantee Fund is created in Ukraine, it must be accompanied by stringent investment restrictions to prevent fund managers from pursuing aggressive investment policies. And these restrictions must be vigilantly monitored and enforced by regulators. But portfolios of totally Ukrainian investments cannot be sufficiently safe to support the guarantee Fund concept. Even short-term State securities in Ukraine are subject to unacceptably high risk of default, or erosion in value due to inflation and increasing interest rates. Consequently, to successfully support a guarantee Fund, a safe portfolio would have to consist of a well diversified world-wide portfolio of top rated bonds of limited duration.

TYPE OF GUARANTEES

One of the key elements in the design of the guarantee Fund is to define what will be guaranteed. There are several possible choices:

1. Real rate of return in excess of inflation
2. Rate of return at least equal to inflation (real return no less than zero)
3. Guarantee no loss of principle (nominal return no less than zero)
4. Return at least equal to the value of an index (measured against the CPI or a stock market index)
5. Relative rate of return guarantee (relative to the average performance of all pension funds)

The guarantee which provides the best protection from the perspective of the insured is the first. Each subsequent item provides less protection than the preceding one. The first item on the list guarantees a real rate of return in excess of inflation. This means the participant is promised a return equal to inflation plus an additional amount. If the real return guarantee is 3% and inflation is 10%, then the participant would be guaranteed a return of 13%. To the extent actual pension fund returns were less, the shortfall would be made up by either the pension fund or the guarantee Fund.

The second option guarantees a return equal to inflation. This is equivalent to promising that the real rate of return will not be less than zero. In the previous example, if inflation is 10%, then the participant would be guaranteed a return of no less than 10%. The third option says that the nominal return can't be less than zero. But it can be less than inflation. This is equivalent to guaranteeing the participant will not lose his contributions to the fund. The guaranteed rate of return is 0%.

The last two options do not guarantee the participant no losses. The fourth option compares the actual return to a standard index, such as the S&P 500 index or the Lehman Brothers Bond Index in the United States. To the extent actual returns are less than the index, the guarantee Fund (or the pension fund) would make up the difference. It is interesting to note that most equity mutual funds in the United States fail to outperform the S&P 500 index. This means the participant would have been better off just to purchase the stocks in the index, than to invest in the mutual fund. The last item in the list is similar, except the index is the average rate of return for all pension funds, rather than an outside index. Again, under either of these options, the participant can have a very large negative rate of return. This will happen in Chile this year.

The first three options – guaranteeing that the participant will not lose money – are unrealistic. It is equivalent to allowing a poker player to purchase an insurance policy which guarantees him that he will not lose. If he loses, the insurance policy pays him back the amount lost. Common sense says that this is not logical. How can there be a way for someone to play poker and be guaranteed they will never lose? Poker is a game of chance and probabilities, and even the best player in the world will lose money sometimes. If it were possible to never lose, everyone in the world might decide to become a poker player. Players would also certainly change their betting behavior. They would gamble large amounts on weak cards, knowing that any losses would be paid by the insurance company. This would eventually lead to the collapse of the poker insurance system. The next section analyzes the mathematics of a guarantee fund.

FINANCING OF THE GUARANTEE FUND

To understand the financing of a guarantee Fund, let's look at how a poker player's insurance fund might operate. Analyzing the financial outcomes to the poker player without insurance provides a great deal of insight into the problems which the pension guarantee Fund will face.

AVERAGE PLAYER

Let's look more closely at what would happen if poker insurance were available. Start with an average poker player whose wins and losses are equal over time, as shown in the chart below:

Poker Probability Chart

Expected winning/(losses)	Probability	Weighted Average
+ $1,000	10%	+$100
+ 500	35%	+175
Zero	10%	0
- 500	35%	-175
- 1,000	10%	-100
Total		Zero

Over time, this player will neither make money nor lose money. Suppose this player wants to purchase poker loss insurance. The insurance works as follows – whenever the player wins, he keeps his winnings, but when he loses, the loss is paid by the insurer. Let look at this problem from the insurer's point of view. According to our Poker Probability Chart, if this player played poker 100 times, the insurer would pay him $500 on 35 occasions (35% of 100 games) and $1,000 on 10 occasions, or $27,500 in total. This means, that insurer must accumulate at least $27,500 during the 100 games. Thus, the insurer must collect a premium of $275 per game. Now lets look at this problem from the player's point of view. After paying this premium, the poker players probability chart changes, as shown below:

Expected winning/(losses)	Probability	Weighted Average
+ $ 725	10%	+$72.50
+ 225	35%	+78.75
- 275	10%	-27.50
- 275	35%	-96.25
- 275	10%	-27.50
Total		Zero

After playing the game 100 times, he pays to the insurer $27,500. But this is exactly equal to his winnings! With or without the insurance, the player exactly breaks even. Notice too, that the player will now "lose" $275 when his game losses are zero. Nothing has really changed. The expected value of the players winnings is still zero.

GOOD PLAYER

Now, assume we have a good poker player, who wins more than he loses. The chart below shows the amounts which he wins or loses, and the probability this will occur:

Poker Probability Chart

Expected winning/(losses)	Probability	Weighted Average
+ $1,000	10%	+$100
+ 500	35%	+175
Zero	10%	0
- 300	35%	-105
- 700	10%	-70
Total		+$100

This poker player wins and losses an equal amount of the time. However, his average winnings on good nights are greater than his average losses on bad nights. Using probability theory, the average value of his winnings is +$100. Because of this poker player's skill (or the low quality of the people he plays against) in the long run, he will make money.

Insurance based on player's ability

Now suppose this player wants to purchase insurance against losing money. How much should the insurance company charge? The proper theoretical premium for this player is $175. If the insurance company charges this amount, and it has no expenses at all, it will break even over time. It won't make or lose money on this player. Similarly, the player will earn $100 on average with or without the insurance. Assume every night before playing, this poker player buys insurance. What happens to his results?

Expected winning/(losses)	Probability	Weighted Average
+ $ 825	10%	+$82.50
+ 325	35%	113.75
- 175	10%	-17.50
- 175	35%	-61.25
- 175	10%	-17.50
Total	100%	+$100

Now the poker player's expected average winnings is still +$100. Nothing has changed. And the poker player has not really made sure he never loses money. On nights when he loses, the insurance company pays his losses, but it keeps the premium which he paid them. And on nights when he wins, the winnings are less because its reduced by the premium he paid. Purchasing the insurance has left this poker player no better off than he was before. This is because the insurance company charged him the theoretically correct amount based on his own actual poker ability, and because the insurance company presumably had enough money to pay his claims.

Insurance based on average player's ability

But suppose the insurance company didn't study each player carefully. Instead it charged the same premium to all players. The theoretically correct premium for the player whose wins and losses are equal is $275. If the good player pays the same premium as the average player, his results will be worse. His expected winnings will drop from +$100 to zero. This illustrates another major problem with guarantee insurance. To succeed, the premium charged must be directly related to the probability that a particular fund will fail to meet its obligations or go bankrupt. In our example, if a good poker player is charged the same premium as every other poker player, what will happen? The good player will quickly decide not to purchase the insurance, because his financial results are better without it. Now that this player isn't purchasing insurance, the premium must increase because the good player is no longer part of the insurance system. Once the premium goes up, the next most skilled player is likely to decide not to purchase insurance either. This process will continue until the entire insurance arrangement collapses. The only way to avoid this outcome, is to charge each player a different premium based on his skill level. This means, of course, that no insurance will be made available to the poorest players. The same type of analysis applies to a pension guarantee fund.

Insurance to recover losses and insurance premiums

Now suppose the poker player wanted to get back his losses plus the insurance premium whenever he losses, so he really never had a night when he loses money. The theoretically correct premium now more than doubles, from $175 to $388.89. Once again, the expected value is still +$100, but now when the player wins, the winnings are very small, as shown in the chart below.

Expected winning/(losses)	Probability	Weighted Average
+ $ 611.11	10%	+61.11
+ 111.11	35%	+38.89
Zero	10%	0
Zero	35%	0
Zero	10%	0
Total	100%	+100.00

Most of the winnings has been spent on insuring the player's losses. This is more similar to the guarantee Fund situation, because the insurance premiums are an investment expense which reduces participant's returns. If the guarantee is that the participant can never have negative returns, then the benefit paid from the guarantee fund must cover the loss and the insurance premium amount.

Cost of insurance based on increased volatility

Now suppose that this poker player plays in a wild and crazy game, where bets are very high, and players take more risks. When he wins the winnings are greater, but so are the losses. This is more like the situation in Ukraine, where big winnings and equally big (or larger) losses are possible. What does this due to the insurance premium? Look at the chart below.

Expected winning/(losses)	Probability	Weighted Average
+ $ 5,000	10%	+$500.00

+ 2,000	35%	+700.00
Zero	10%	0.00
- 1,833	35%	-641.55
- 4,584	10%	-458.40
Total	100%	+$100.05

With this set of figures, the player's average winnings is still +$100. But the variance in winnings is much greater. How much must the insurance company charge now? The premium will be $1,100 instead of $175. Volatility makes a huge difference in the premium which must be charged! And the correct premium if the insurance is to pay any losses and reimburse the premium is $4,000!! In this situation, there are no losses, but there is almost never any profit either, as shown in the chart below. The premium wipes out all the winnings. When volatility is too great, insurance breaks down. Why pay a $4,000 premium when the maximum possible winnings is $5,000?

Expected winning/(losses)	Probability	Weighted Average
+ $ 1,000	10%	+$100
Zero	35%	0
Zero	10%	0
Zero	35%	0
Zero	10%	0
Total	100%	+$100

Other considerations

There are several other differences, however, between this situation and the guarantee Fund. Poker is a zero sum game. What one player loses, another player makes. It isn't possible for everyone at the table to lose. However, with Ukrainian pension funds, it is possible for everyone to lose in the same year. Devaluation of the national currency, an unexpected increase in inflation, or an economic recession, for example, will affect almost all pension funds. This causes far greater problems for the guarantee Fund than the poker insurance fund. If the poker insurance fund sells a policy to everyone at the table playing in the same game, it can't lose. Even if it sells policies to different individuals playing in different games, the chances that all its policy holders will lose at the same time is small. Each game is an independent event.

But the guarantee Fund not only can have all its policy holders lose at the same time, it is likely this is exactly what will occur. So the amount of capital needed by the insurance company is very, very large. It's unlikely any private organization or even the government can afford to make such large insurance guarantees.

Consequently, the existence of the guarantee Fund is likely to give workers a false sense of security in the system, and to encourage workers and employers to insure their funds. Therefore, any future pension fund crisis will be more serious. It isn't possible in a very risky situation to make it less risky simply by setting up a guarantee Fund. The same risks still exist; at best the guarantee Fund just transfers who takes the risk. More likely, it increases the amount of money at risk. Therefore, it is critical that the organization which assumes the risk

have the financial capacity to do so. No one has enough money to insure positive economic growth in Ukraine.

Determining required capital requirements

There is a proper mathematical way to determine how much capital such a guarantee fund will need. First, the government must decide what probability of guarantee Fund failure is acceptable. Presumably, this will be very small, maybe 0.1% -- one chance in a thousand. Once this parameter is set, other assumptions are made about expected return and volatility of the assets purchased by the pension fund, the level of guarantee, and the required level of capitalization and reserves for pension funds. Then, using risk and ruin theory, the amount of capital needed to keep the probability of failure below the predetermined level can be calculated. Such calculations would show that the amount of capital needed for such an organization to serve its function would be unacceptably large if the investor is guaranteed returns will never be negative.

DESIGNING A FINANCIALLY SOUND GUARANTEE FUND

Investing is, in many ways, equivalent to playing a game of poker. Some people try to differentiate between gambling, speculating and investing, and treat them as different activities. Perhaps this distinction can be made in the United States, but such a distinction is purely semantics, especially in Ukraine. An argument is made in the United States that since the long-term trend of the equity markets is always up, a person who can invest regularly and doesn't need their money for a long time is very likely to profit. Can such an argument be made in Ukraine? Can there be any confidence that the long-term economic trend here will be positive? Today, the answer must be no.

In the United States, it's possible the stock market might decline by 10% in one year. But it is highly unlikely it will decline by 75% as the Ukrainian stock market has done this year. And interest rates in the US have never increased from 14% to 80% or more in a matter of months as they have in Ukraine. Even if the long-term trend in Ukraine is up then, the situation is quite analogous to our poker player who wins more than he loses, and who plays in a game where profits and losses can be very large and volatile.

How can a viable guarantee Fund be designed in Ukraine? Unfortunately, the only way such a Fund can succeed is to provide minimal protection at low premium. If this is the situation, can the guarantee Fund fulfill its purpose of giving investors greater confidence that their money is safe? Such a Fund will not be able to guarantee anyone that they will not lose money. What would be the characteristics be of a viable Fund?

- It can only make guarantees which are directly related to an outside index or the actual performance of pension funds in Ukraine.
- It can only serve as a back-up to the reserves, capital and guarantees of the pension fund itself.
- The government would probably need to guarantee the guarantee Fund
- Strict government regulation of permitted investments would be required
- Strict auditing and monitoring of pension funds would be required to assure compliance with investment limits, and to monitor the level of reserves and capital
- There must be strict rules for the government to shut down funds which are experiencing financial problems. These pension funds must be merged with healthy funds or be liquidated
- In the event of liquidation, the bankruptcy laws must make it clear which creditors have priority claims on assets. The relative position of the participants, the guarantee Fund and other creditors must be clearly established by law
- Fund managers must have some personal liability in the event of losses.

Polish guarantee fund

A system similar to this has been established in Poland under their pension reform law. Pension funds are required to include a minimum relative rate of return guarantee in their contracts. This relative rate of return is calculated the same way as in Chile. The Chilean system works as follows:

- Each month, the real rate of return for each pension fund in the prior 12 months is calculated

- These rates of return are then arithmetically averaged to determine the average real rate of return for all funds. This could be positive or negative
- Then each pension fund's real rate of return is compared to the average. The actual return for each pension fund must exceed the lesser of: i) 50% of the average return; or ii) the average return less 2%. The chart below shows the minimum required relative rates of return:

Average real return for all funds	Required minimum return
+10%	5%
+8%	4%
+6% +4%	3% 2%
+2%	0%
0%	-2%
-2%	-4%
-4%	-6%
-6%	-8%
-8%	-10%
-10%	-12%

- It this test is failed, the fund must use its own reserves and capital to raise participant's returns to the minimum required level. If funds are insufficient to do so, the government makes the additional contribution to participants, and the pension fund is shut down. There is no guarantee Fund in the middle.

In Poland, unlike Chile, there is a guarantee Fund, and this Fund is backed by the government in the event of failure. In Kazakstan, there is a similar minimum relative rate of return guarantee. But there is neither a guarantee Fund, nor a government guarantee. Only the reserves and capital of the Kazak asset management companies support the guarantee. However, the Kazak government does guarantee a minimum pension from the solidarity and accumulation systems combined. This provides an indirect guaranteed rate of return. However, because the minimum pension is related to the poverty level, the Kazak formula provides no guarantee at all to high-paid individuals, and some guarantee to the lowest paid individuals.

In actuality, pension funds in Chile have only had to make additional contributions because of the minimum relative rate of return guarantee on two occasions in 17 years. Why? Because no pension fund wants to make payments from its own reserves or capital. So each fund makes sure its investments are very similar to every other fund. The net result is 20 or more nearly identical funds. Since reserve requirements are rather stringent, and the guarantee is rarely triggered. But the guarantee has little value, and therefore would do little to encourage participation in private pension schemes. But in Chile, the system is mandatory. It's likely the same situation will exist in Poland as well.

However, the details of the system structure can have an effect on the results. The greater the required initial capital and the higher the required reserve, the less likely the guarantee fund will have to pay. On the other hand, if reserves and capital requirements are low, funds may decide they can take more risk, because there is only a limited amount of money the pension fund founders can lose, and if they fail, the

guarantee fund will rescue participants. Consequently, there is less feeling of responsibility to the participant, and a greater likelihood of reckless behavior.

United States insurance company guarantees

Another type of rate of return guarantee exists in the United States. Many employers in the US sponsor pension accumulation plans. In most of these plans, the participant is given a wide range of investment options, and selects how he wants his money to be invested. The participant can select one or more options. Typically, there is one "guaranteed income" option. This option is usually financed through an insurance companies using a GIC or Guaranteed Income Contract. How does a GIC work?

- A competitive bidding process among insurers is conducted by the private accumulation fund
- The selected insurance company agrees to accept whatever contributions participants allocate to the GIC option during the course of the next year
- The insurance company guarantees to pay those participants who elect the GIC fund a specified rate of return on the money they put into this option during the next year. This rate of return is usually guaranteed for 2 to 5 years
- The insurance company promises to pay out all withdrawals permitted by the pension plan's written plan document
- The insurance company promises to pay back the money it receives with the specified amount of interest at the end of the contract period.

How can a US insurance company afford to make such guarantees, while a Ukrainian guarantee Fund cannot? There are many reasons:

- The insurance company is making a guarantee with respect to money that it is investing. It is not guaranteeing someone else's results, over whom it has no control
- The insurance company's offer is only valid for the business day on which is it made. The offer does not even remain valid overnight
- The insurance company has the ability to use sophisticated investment products such as Treasury bill futures, and options on futures to invest the money within minutes of acceptance of the offer. US capital markets allow for instant purchases and sales with very minimal commissions
- The insurance company uses sophisticated investment techniques, such as interest rate immunization to carefully match assets with expected benefit payments, so that it is largely protected from changes in interest rates after the investments are made
- The US Treasury bill market is completely reliable and not subject to default
- The US economy is large and stable, and is not subject to financial crises like those in the former Soviet Union
- Insurance companies have very high minimum capital requirements, and are extensively regulated.

Despite all of these protections, there are still occasional problems in the United States. In the late 1980s, Mutual Benefit Life Insurance company failed. Many of its policy holders were unable to receive distributions from GIC policies (and other types of investment products) until well after the maturity date, and interest rate guarantees were reduced. Even in the US, despite all of its financial sophistication, such guarantees can fail. These types of guarantees should not be permitted in Ukraine at this time.

SUMMARY

The Ukrainian economy at this time is not stable. Its capital markets are in their infancy. Consequently, all investments in Ukrainian equities or bonds, whether corporate or State are subject to a great deal of risk. As a result, any type of financial institution which invests only in the Ukrainian capital markets is making very risky investments, and is completely violating one of the fundamental principles of investing – diversification.

Unfortunately, it is not possible to create a guarantee Fund which suddenly makes unstable and risky investments in a troubled economy safe. The guarantee Fund merely creates an illusion of safety, but does nothing to change underlying risks. It is unfortunate that anyone who invests in the Ukrainian capital markets today is a gambler, and gamblers must be prepared to lose all their money. It is also unfortunate that the Ukrainian capital markets are not well regulated and do not yet have a sound legal and administrative foundation. Consequently, markets are subject to manipulation by insiders, which puts the ordinary worker at an even greater disadvantage.

The Ukrainian capital markets are not very different from the casinos in Kyiv. The game is stacked against the ordinary citizen. Consequently, if someone can't afford to lose their money, then they have no business playing the game. No guarantee Fund can make this game safe to play.

Only a very limited guarantee program can succeed in Ukraine today. Any program which guarantees no investment losses is dangerous. As the old saying goes, "if something sounds too good to be true, then it is." The safety promised by such a guarantee Fund is only an illusion. It will actually make the entire program more dangerous by instilling a false sense of security in non-State pension fund investors. A more limited program can probably function effectively, but it's questionable whether such guarantees will increase investor's desire to participate in non-State pension funds.

The truth is quite simple. Workers are making an intelligent choice when they choose not to invest n non-State pension funds. These funds are unlikely to succeed in Ukraine in the absence of a sound foundation, which includes:

- Stable economy,
- Stable banking system
- Proper and stable legislation
- Independent and professional regulation
- Well-run capital markets
- Solid administrative systems
- International accounting and auditing standards
- Proper disclosure requirements
- Lack of corruption.

In the absence of these foundations, the entire financial system will remain at risk, and the creation of a guarantee Fund cannot change this.